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MORE ON JAVASCRIPT

Most famous High-Level Programming Language

Operators

- All the operators in JavaScript can be divided into three groups.
    1. Arithmetic Operators
    2. Assignment Operators
    3. Comparison & Logical Operators

- **Arithmetic Operators:**

Operator	Description
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus
++	Increment
--	Decrement

Operators

- **Assignment Operators:**

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y

Operators

- **Comparison & Logical Operators:**

Operator	Description
==	equal to
===	equal value and equal type
!=	not equal
!==	not equal value or not equal type
>	greater than
<	less than
>=	greater than or equal to
<=	less than or equal to
?	ternary operator

JS Array

- Array is a collection of multiple items under a single variable name or Array is an ordered list of values.

- Each item in an array is called element of the array.

- Position of element is called index which starts from zero. So, the first item in the array has zero index.

- An array can hold values of mixed types. For example, you can have an array that stores elements with the types number, string, and Boolean.

- The size of an array is dynamic and auto-growing. In other words, you don't need to specify the array size upfront.

- The following example creates the colors array that holds string elements:

```
var colors = ['red', 'green', 'blue'];
```

- To access an element in an array, you specify an index in the square brackets []:

```
colors[1];
```

JS Object

- An Object is a collection of key-value pairs, or an object is a collection of related data and/or functionality.

- Each key-value pair is called property of the object.

- Any value can be given to a key like string, number, Boolean, function etc.

- If the value of a key is function, then this key-value pair is called method of the object.

- The following example creates a person object:

```
const person = {
        name: ['Bob', 'Smith'],
        age: 32,
        bio: function() {
            console.log(`My name is Bob and I am 32`);
        },`
};
```

Popups

- JavaScript has three types of alert boxes or popups.
    1. Alert Box
    2. Confirm Box
    3. Prompt Box

- **Alert Box:**

- Used for showing alerts.

```
window.alert("Alert: You are leaving the Page");
```

- **Confirm Box:**

- Used for confirmation of actions.

```
window.confirm("Confirmation: Do you want to delete?");
```

- **Prompt Box:**

- Used for getting input in alert box from user.

```
var name = window.prompt("Message", "default value");
```

Functions

- A JS function is a block of code or collection of JS statements that performs a specific task.

- You must have seen functions like alert() and write(). We were using these functions again and again, but they had been written in core JavaScript only once.

- JavaScript allows us to write our own functions as well.

- A function definition (also called a function declaration, or function statement) consists of the function keyword, followed by:
    1. The name of the function.
    2. A list of parameters to the function, enclosed in parentheses and separated by commas.
    3. The JavaScript statements that define the function, enclosed in curly brackets, {...}.

```
function functionname(parameter-list)
 {
     Statements…
 }
```

Functions

- The code inside the function/curly braces will execute when "something" invokes (calls) the function.

- To call a function, write the function name with parenthesis.

```
functionname();
```

- The function will stop executing, when JavaScript reaches a return statement.

- Function parameters are the names listed in the function definition like p1,p2.

```
functionname(p1, p2) {…};
```

- Function arguments are the real values received by the function when it is invoked like 14,3.

```
functionname(3.14, 2.3);
```